

INTERNATIONAL SEARCH REPORT

International Application No. PCT/US87/02050

I. CLASSIFICATION & SUBJECT MATTER (if several classification symbols apply, indicate all)

According to International Patent Classification (IPC) or to both National Classification and IPC
 IPC (4): C12Q 1/68; C07H 21/00
 US CL : 435/6; 536/27

II. FIELDS SEARCHED

Minimum Documentation Searched *

Classification System	Classification Symbols
US	435/6,803; 536/27
	935/78,9,11
	436/501,811; 514/8; 530/300,324

Documentation Searched other than Minimum Documentation
 to the Extent that such Documents are Included in the Fields Searched *

COMPUTER SEARCH: APS; CHEMICAL ABSTRACTS (1967-PRESENT);
 BIOSIS (1967-PRESENT)

III. DOCUMENTS CONSIDERED TO BE RELEVANT **

Category *	Citation of Document, ¹⁶ with indication, where appropriate, of the relevant passages ¹⁷	Relevant to Claim No. ¹⁸
Y	Journal of Immunology, Volume 134, No. 4, issued April 1985, (Baltimore, MD, USA), M. Blue et al "Coexpression of T4 and T8 on peripheral blood T cells demonstrated by two-color fluorescence flow cytometry", see page 2281.	1-34
Y	Nature, Volume 312 issued 20 December 1984, (London, England), A.G. Dalgleish et al "The CD4 (T4) antigen is an essential component of the receptor for the AIDS retrovirus", see pages 763 and 766.	1-34
X Y	Cell, Volume 42, No. 1, issued August 1985 (Cambridge, MA, USA), P.J. Madden et al "The Isolation and Nucleotide Sequence of a cDNA Encoding the T Cell Surface Protein T4: A New Member of the Immunoglobulin Gene Family", see page 93.	1-12,20-31, 34 13-19,32,33

* Special categories of cited documents: 15

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"S" document member of the same patent family

IV. CERTIFICATION

Date of the Actual Completion of the International Search ¹⁹

28 October 1987

Date of Mailing of this International Search Report ²⁰

10 NOV 1987

International Searching Authority ²¹

ISA/US

Signature of Authorized Officer ²²

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FURTHER INFORMATION CONTINUED FROM THE SECOND SHEET

X	Proceedings National Academy of Sciences, USA, Volume 83, No. 12, issued June 1986 (Washington, D.C., USA), M. Isobe et al "The gene encoding the T-cell surface protein T4 is located on human chromosome 12" see page 4399.	1-12 13-34
Y	Science, Volume 231, issued 24 January 1986 (Washington, D.C. USA), J.S. McDougal et al "Binding of HTLV-III/LAV to T4+ T Cells by a Complex of the 110K Viral Protein and the T4 Molecule" see page 382.	1-34

V. OBSERVATIONS WHERE CERTAIN CLAIMS WERE FOUND UNSEARCHABLE¹⁰

This international search report has not been established in respect of certain claims under Article 17(2) (a) for the following reasons:

1. Claim numbers because they relate to subject matter¹¹ not required to be searched by this Authority, namely:

2. Claim numbers because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out¹³, specifically:

VI. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING¹¹

This International Searching Authority found multiple inventions in this international application as follows:

See Attachments

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims of the international application.
2. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims of the international application for which fees were paid, specifically claims: 1-34

Telephone Practice

3. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claim numbers:
4. As all searchable claims could be searched without effort justifying an additional fee, the International Searching Authority did not invite payment of any additional fee.

Remark on Protest

The additional search fees were accompanied by applicant's protest.
 No protest accompanied the payment of additional search fees.